

**CLAIMS:**

What is claimed is:

1. A method for selecting a correct class loader for a plug-in within a class loader hierarchy, comprising the steps of:

creating a plug-in class loader for each class loader in a plug-in application's class loader hierarchy for an application, wherein each plug-in class loader is associated with a single application class loader within the application class loader hierarchy, and is configured such that it delegates to its associated application class loader; and

loading of a class using a selected plug-in class loader, the selected plug-in class loader that delegates to the application class loader that loaded an associated application class.

2. A method for selecting a class loader for a plug-in, the method comprising:

providing a class loader hierarchy, wherein the class loader hierarchy includes a plurality of class loaders; and

providing a plug-in class loader for each class loader in the class loader hierarchy, wherein each plug-in class loader delegates to a respective class loader.

3. The method of claim 2, wherein the plurality of class loaders includes a boot class loader.

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4. The method of claim 3, wherein the plurality of class loaders includes an extension class loader, wherein the extension class loader delegates to the boot class loader.

5. The method of claim 4, wherein the plurality of class loaders includes a system class loader, wherein the system class loader delegates to the extension class loader.

6. The method of claim 5, wherein the plurality of class loaders includes one or more application class loaders, wherein the one or more application class loaders delegate to the system class loader.

7. The method of claim 2, further comprising:  
responsive to an application class loading a plug-in class, identifying a class loader within the class loader hierarchy that loaded the application class;  
identifying a plug-in class loader that is provided for and delegates to the application class loader; and  
loading the plug-in class using the plug-in class loader.

8. The method of claim 2, further comprising:  
responsive to a first application class loading a first plug-in class, identifying a target class loader within the class loader hierarchy that loaded a target class;

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identifying a plug-in class loader that is provided for and delegates to the target class loader; and

loading the first plug-in class using the plug-in class loader.

9. The method of claim 8, wherein the step of identifying a target class loader within the class loader hierarchy that loaded a target class includes using a class loader that loaded the application class to look up the target class.

10. The method of claim 8, further comprising:

responsive to a second application class loading a second plug-in class, identifying the target class loader within the class loader hierarchy that loaded the target class;

identifying the plug-in class loader that is provided for and delegates to the target class loader; and

loading the second plug-in class using the plug-in class loader.

11. The method of claim 10, wherein the first plug-in class and the second plug-in class share data.

12. An apparatus for selecting a class loader for a plug-in, the apparatus comprising:

means for providing a class loader hierarchy, wherein the class loader hierarchy includes a plurality of class loaders; and

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means for providing a plug-in class loader for each class loader in the class loader hierarchy, wherein each plug-in class loader delegates to a respective class loader.

13. The apparatus of claim 12, wherein the plurality of class loaders includes a boot class loader.

14. The apparatus of claim 13, wherein the plurality of class loaders includes an extension class loader, wherein the extension class loader delegates to the boot class loader.

15. The apparatus of claim 14, wherein the plurality of class loaders includes a system class loader, wherein the system class loader delegates to the extension class loader.

16. The apparatus of claim 15, wherein the plurality of class loaders includes one or more application class loaders, wherein the one or more application class loaders delegate to the system class loader.

17. The apparatus of claim 12, further comprising:

means, responsive to an application class loading a plug-in class, for identifying a class loader within the class loader hierarchy that loaded the application class;

means for identifying a plug-in class loader that is provided for and delegates to the application class loader; and

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means for loading the plug-in class using the plug-in class loader.

18. The apparatus of claim 12, further comprising:

responsive to a first application class loading a first plug-in class, identifying a target class loader within the class loader hierarchy that loaded a target class;

identifying a plug-in class loader that is provided for and delegates to the target class loader; and

loading the first plug-in class using the plug-in class loader.

19. The apparatus of claim 18, wherein the means for identifying a target class loader within the class loader hierarchy that loaded a target class includes means for using a class loader that loaded the application class to look up the target class.

20. The apparatus of claim 18, further comprising:

means, responsive to a second application class loading a second plug-in class, for identifying the target class loader within the class loader hierarchy that loaded the target class;

means for identifying the plug-in class loader that is provided for and delegates to the target class loader; and

means for loading the second plug-in class using the plug-in class loader.

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21. The apparatus of claim 20, wherein the first plug-in class and the second plug-in class share data.

22. A computer program product, in a computer readable medium, for selecting a class loader for a plug-in, the computer program product comprising:

- a class loader hierarchy, wherein the class loader hierarchy includes a plurality of class loaders; and

- a plug-in class loader for each class loader in the class loader hierarchy, wherein each plug-in class loader delegates to a respective class loader.